

## **EXHIBIT A**

### **SCOPE OF WORK**

#### **Purpose**

The purpose of this Agreement is to assist the Energy Commission in developing and implementing a comprehensive program to improve the energy efficiency of existing buildings. AB 758 (Chapter 470, Statutes of 2009) requires the Energy Commission to develop and implement a comprehensive program (program) to achieve greater energy savings in the state of California's existing residential and nonresidential building stock. The Contractor shall assist the Energy Commission with development of the following:

- Needs assessments for energy efficiency improvements in residential and nonresidential buildings;
- Technical guidance for Phase Two of the Home Energy Rating System (HERS II);
- A Building Energy Asset Rating System (BEARS) for nonresidential buildings;
- Residential and nonresidential rating and disclosure programs;
- Residential and nonresidential efficiency improvement programs;
- Approaches to reduce barriers to efficiency financing and tax credits for newly constructed affordable housing;
- Streamlined permitting processes for alterations of existing residential buildings;
- Approaches to evaluate and recommend improvements to the program; and
- Additional program components requiring technical expertise.

#### **Background**

##### **A. Existing Buildings**

Since 1978, California has sought to make newly constructed homes energy efficient through Building Energy Efficiency Standards. As a result of these efforts, California has avoided the need to build about 3,000 megawatts (MW) of new electricity generation capacity (or about 6 medium-sized power plants), reducing energy bills and improving the state's economy and environment. Over 40 percent of California's housing stock is more efficient as a result of California's comprehensive Standards program.

However, nearly 60 percent of California's housing stock (and a comparable percentage of California's nonresidential building stock) was built prior to the existence of Building Energy Efficiency Standards. Accordingly, substantial energy efficiency improvements are needed in many of California's existing buildings. These improvements will result in major energy savings that are important to California's economy and environment, particularly due to the air quality and water resource impacts of power plants, energy bill impacts of unnecessary electricity and natural gas use, and California's efforts to mitigate climate change through greenhouse gas (GHG) emission reductions.

## B. AB 758 Requirements

AB 758 adds section 25943 to the Public Resources Code (PRC) and sections 381.2 and 385.2 to the Public Utilities Code. These sections require the Energy Commission to establish and assess the program, and utility companies to implement energy efficiency programs for residential and nonresidential buildings. PRC section 25943(a)(2) proposes the following program strategies to achieve greater energy efficiency in existing residential and nonresidential structures:

- Energy assessments;
- Building benchmarking;
- Energy rating;
- Cost-effective energy efficiency improvements;
- Public and private sector energy efficiency financing;
- Public outreach and education; and
- Green workforce training.

PRC section 25943(c) requires the Energy Commission to consider the following in developing the program:

- The amount of annual and peak energy savings, GHG emission reductions, and projected customer utility bill savings that will accrue from the program;
- The most cost-effective means and reasonable timeframes to achieve the goals of the program;
- The various climate zones within the state;
- An appropriate method to inform and educate the public about the need for, benefits of, and environmental impacts of, the comprehensive energy efficiency program;
- The most effective way to report the building energy assessment and the corresponding energy efficiency improvements to the owner of the residential or nonresidential building, including, among other things, the following:
  - Prioritizing the identified energy efficiency improvements;
  - The payback period or cost-effectiveness of each improvement identified;
  - The various incentives, loans, grants, and rebates offered to finance the improvements;
  - Available financing options including all of the following:
    - Mortgages or sales agreement components;
    - On-bill financing;
    - Contractual property tax assessments;
    - Home warranties
- Existing statutory and regulatory requirements to achieve energy efficiency savings and GHG emission reductions;
- A broad range of implementation approaches, including both utility and nonutility administration of energy efficiency programs; and
- Any other considerations deemed appropriate by the Energy Commission.

PRC section 25943(d) requires the Energy Commission to do the following:

- Minimize the overall costs of establishing and implementing the comprehensive energy efficiency program requirements;
- Ensure, for residential buildings, that the energy efficiency assessments, ratings, or improvements do not unreasonably or unnecessarily affect the home purchasing process or the ability of individuals to rent housing (a transfer of property subject to the program shall not be invalidated solely because of the failure of a person to comply with a provision of the program);
- Ensure, for nonresidential buildings, that the energy improvements do not have an undue economic impact on California businesses;
- Determine, for residential buildings, the appropriateness of the HERS program to support the goals of AB 758 and whether there are a sufficient number of HERS-certified raters available to meet the program requirements;
- Determine, for nonresidential structures, the availability of an appropriate cost-effective energy efficiency assessment system and whether there are a sufficient number of certified raters or auditors available to meet the program requirements;
- Coordinate with the California Workforce Investment Board, the Employment Training Panel, the California Community Colleges, and other entities to ensure a qualified, well-trained workforce is available to implement the program requirements;
- Coordinate with, and avoid duplication of, existing proceedings of the Public Utilities Commission and programs administered by utilities.

The comprehensive program that AB 758 directs is expected to be an ongoing and evolving transformation of the market to deliver the substantial energy savings and GHG emissions reductions inherent in the state's existing residential and nonresidential building stock.

### Key Words and Definitions

Important definitions for this Agreement are presented below:

Word/Term	Definition
AB 758	California Assembly Bill 758 (stats. 2009, ch. 470) as codified in Public Resources Code section 25943 and Public Utilities Code sections 381.2 and 385.2. This bill was sponsored by Assembly member Nancy Skinner and signed into law in 2009. AB 758 requires the Energy Commission to establish a regulatory proceeding to develop a comprehensive program to achieve greater energy savings in the state's existing residential and nonresidential building stock.
AB 1103	California Assembly Bill 1103 (stats. 2007, ch. 533) as codified in Public Resources Code section 25402.10. This bill was sponsored by Assembly member Lori Saldana and signed into law in 2007. AB 1103 requires owners and operators of nonresidential buildings to disclose a building's energy performance ratings and data to prospective buyers, lessees, or lenders financing the building's sale.
ARRA	American Reinvestment and Recovery Act of 2009
ASHRAE	American Society of Heating, Refrigeration and Air-conditioning Engineers

ASTM	American Society for Testing and Materials
BEARS	Building Energy Asset Rating System
CCM	Commission Contract Manager
CPUC	California Public Utilities Commission
CALBO	California Building Officials
CEUS	Commercial End Use Survey
CLSB	California State Licensing Board
COMNET	Commercial Energy Services Network
CO <sub>2</sub> e	Carbon Dioxide equivalent
CUAC	California Utility Allowance Calculator
Energy Commission	California Energy Commission
Energy IQ	A commercial building energy benchmarking tool available for use on the Internet
EP	Energy Performance
EUI	Energy Use Index, reported in units of kBtu per square feet
HERS II	Home Energy Rating System for existing residential buildings
HVAC	Heating, Ventilation and Air Conditioning
IEPR	Integrated Energy Policy Report
PIER	Public Interest Energy Research program
Retro-commissioning (also known as existing building commissioning)	A systematic process intended to optimize how equipment operates as an integrated system. Retro-commissioning focuses on the operation of mechanical equipment, lighting, and related controls.
SEP	State Energy Program
State	State of California
TCAC	Tax Credit Allocation Committee
TDV	Time Dependent Valuation, used as the energy cost metric in the California Building Energy Efficiency Standards
U.S. EPA	United States Environmental Protection Agency

## Work Authorization

This is a "Work Authorization" Agreement and no work shall be undertaken unless authorized by the Energy Commission through a specific written document called a "Work Authorization". The Energy Commission's Contract Manager (CCM) and the Contractor will prepare and issue the written work authorizations that will that define the scope of work, the schedule of deliverables and the project budget.

Final assignment of tasks and maximum payment on individual projects will be described in work authorizations signed by the Contractor and the CCM. To ensure the timeliness and success of all work performed under this Agreement, the CCM will work closely with the Contractor to administer the Agreement, and a staff person will be assigned as a Work Authorization Manager to direct and review the work of assigned contractors on individual work assignments throughout all phases of the Agreement. Energy Commission staff will review all products and deliverables to ensure quality, consistency and compliance with Energy Commission policies.

## Primary Tasks and Tentative Completion Dates

The major categories of work are divided into the tasks below. All work requested via work authorizations will fall within one or more of the tasks.

Task #	Task	Tentative Completion Date
1	Residential Needs Assessment	February 2011
2	Nonresidential Needs Assessment	February 2011
3	Home Energy Rating System	To be Specified in Work Authorization
4	Building Energy Asset Rating System	Same as above
5	Residential Rating and Disclosure Programs	Same as above
6	Residential Efficiency Improvement Programs	Same as above
7	Affordable Housing	Same as above
8	Nonresidential Rating and Disclosure Programs	Same as above
9	Nonresidential Efficiency Improvement Programs	Same as above
10	Compliance and Enforcement	Same as above
11	Program Measurement, Verification and Evaluation	Same as above
12	Contingencies and Additional Topic Areas	Same as above
13	Contract Management	Ongoing

The CCM may change the schedule for tentative completion dates by written notice to the Contractor.

## TECHNICAL TASKS

### **Task 1 - Residential Needs Assessment**

The Contractor shall review all relevant efficiency program materials and interview known experts including Commission staff on the topics required to develop a comprehensive program to improve the energy efficiency of existing residential buildings. The subject areas expected to be covered in this assessment include but are not limited to:

- Public awareness of energy use, costs and environmental consequences, in addition to available energy efficiency programs (including financing)
- Public readiness to receive new messaging for comprehensive retrofit programs
- Financing options available to consumers
  - ARRA-funded initiation of retrofit financing programs
  - Emerging national financing initiatives to advance energy efficient mortgage financing
- Workforce development
  - ARRA-funded Clean Energy Workforce Training programs
  - Workforce training included in ARRA SEP programs
  - Utility training programs
- Building science research to advance effective technologies and strategies, in order to improve the cost-effectiveness of home energy ratings and comprehensive retrofits
- Rating home energy performance
  - Known HERS II issues
  - Needs for energy system benchmarks
  - Development and support of public goods rating software tools, algorithms and reference data
  - Research into new methods to rate home energy performance, such as data-driven modeling or other applicable approaches
  - Needs for web-based interfaces to rating software
- Energy audits
  - Options to reduce costs of building performance contracting
  - Integration of specialty contractors into HERS II programs
  - Utility bill-based calibration of HERS II model
  - Developing retrofit recommendations and prioritizations
- Comprehensive retrofits
  - ARRA-funded California Comprehensive Residential Retrofit Programs
  - Utility funded retrofit programs
  - Relevant program models – examples from other regions or nations
- Partnering opportunities to develop and implement the program
- Measurement, verification and evaluation for the residential component of the program
  - Opportunities to leverage the ARRA Measurement and Verification Program

The Contractor shall use the results of the needs assessment to develop draft Work Authorizations that will be reviewed, modified and approved by the CCM as necessary to complete Tasks 3, 5, 6, 7, 10 and 11 for residential buildings.

#### Deliverables:

- Residential Needs Assessment Report
- Draft and Final Work Authorizations

## **Task 2 - Nonresidential Needs Assessment**

The Contractor shall review all relevant efficiency program materials and interview known experts including Commission staff on the topics required to develop a comprehensive program to improve the energy efficiency of existing nonresidential buildings. The subject areas expected to be covered in this assessment include but are not limited to:

- Building industry awareness of energy use, costs and environmental consequences; building industry awareness of available energy efficiency programs, including financing
- Building industry readiness to receive new messaging for comprehensive retrofit programs;
- Financing options available to businesses
  - ARRA-funded initiation of municipal financing programs
  - On-bill financing offered from utilities
- Workforce development
  - ARRA-funded Clean Energy Workforce Training programs
  - Workforce training included in ARRA SEP programs
  - Utility training programs
  - Professional trade training and apprenticeships
- Building science research to advance effective technologies and strategies, in order to improve the cost-effectiveness of building energy ratings and comprehensive retrofits
- Rating the energy performance of nonresidential buildings
  - Asset ratings for existing buildings
  - Operational ratings
    - Lessons learned from the implementation of AB 1103
  - Disclosure due diligence in financial transactions
    - American Society for Testing and Materials (ASTM) Energy Performance Disclosure Standard
    - Public Interest Energy Research (PIER) Project – field completion of checklist to be used in performance disclosure processes
  - Identifying the assets and operational characteristics of energy systems
    - Energy Performance (EP) Label project
    - Energy IQ
  - Training and certification of Energy Assessors
    - Commercial Energy Services Network (COMNET)
  - Development and support of public goods rating software tools, algorithms and reference data
- Energy Audits
  - Audit models employed in ARRA-funded programs
  - Level of effort required to assess relative energy performance compared to that needed to identify potential improvements
  - Issues with effectively addressing the broad variation of energy system complexity in the commercial building sector
  - Consistency of different Energy Auditor certification programs
- Retro-commissioning
  - Progress and remaining issues, as identified by the California Commissioning Collaborative
- Continuous improvement
  - Use of building specific benchmarks and performance monitoring
  - Integrating efficient operational practices into different classes and sizes of businesses
- Voluntary efficiency improvement programs sponsored by California utilities

- Partnering opportunities for the development and implementation of the nonresidential component of the program
- Measurement, verification and evaluation for the nonresidential component of the program
  - Opportunities to leverage the ARRA Measurement and Verification Program

The Contractor shall use the results of the needs assessment to develop draft Work Authorizations that will be reviewed, modified and approved by the CCM as necessary to complete Tasks 4, 8, 9, 10 and 11 for nonresidential buildings.

Deliverables:

- Nonresidential Needs Assessment Report
- Draft and Final Work Authorizations

### **Task 3 - Home Energy Rating System**

The Contractor shall:

- Provide building science research and analysis to address HERS II implementation issues that arise in the ARRA SEP residential retrofit programs or the comprehensive retrofit programs funded by the utilities
- Support the Commission in completing updates and/or developing clarifications to the HERS II Technical Manual on an as-needed basis
- Implement improvements and/or additions to the public goods HERS II modeling algorithms and data libraries to support the HERS II Technical Manual updates and/or clarifications
- Develop technical guidelines, tutorials and other information for retrofit contractors as new areas of required knowledge in comprehensive residential retrofits are identified
- Complete work identified in the Task 1 Residential Needs Assessment related to the Home Energy Rating System

Deliverables:

- To be defined as needed through Work Authorizations

### **Task 4 - Building Energy Asset Rating System**

The Contractor shall support the Commission in the development of the Building Energy Asset Rating System (BEARS) for California nonresidential buildings. The work in this task will focus on the technical details of assessing the relative energy performance of nonresidential building properties. The Contractor shall complete work identified in Task 2 Nonresidential Needs Assessment related to the Building Energy Asset Rating System. The work in this task is expected to include but not be limited to the following:

- Collaborating with National performance rating organizations (e.g. COMNET, U.S. EPA, ASHRAE) and performance data disclosure standards organizations (e.g. ASTM)
- Learning from the experiences of the asset rating standards setting and implementation organizations in Europe, Australia and China
- Developing field assessment protocols
  - Identifying commonalities between energy performance assessments and retro-commissioning and energy audit processes
  - Specifying the field data required to construct asset building models



- Determining the appropriate amount of physical testing of building energy systems that should be required
- Establishing energy system benchmarks, using Commercial End Use Survey (CEUS) and industry-developed data
- Determining the BEARS rating scale and graphical representation
  - Representing current practice on the scale, either with building stock medians or current design code-based energy budgets
  - Selecting the performance metrics (e.g. TDV, CO<sub>2</sub>e, EUI, renewable energy generation) to report and determining how to include them on the BEAR rating certificate
  - Determining the appropriate graphical representation of the BEARS rating scale, such as a continuous but differentiated bar (e.g. HERS) or discrete categories (e.g. the United Kingdom's Energy Performance Certificate, ASHRAE's Building EQ)
- Specifying performance rating software requirements
  - Reviewing COMNET Standards
  - Incorporating COMNET Standards as appropriate
  - Developing additional specifications as needed
- Developing, collecting, organizing and creating web-based interfaces to software algorithms and data libraries that meet the performance rating software requirements
- Developing performance rating software test criteria
- Developing training curricula and certification requirements for Energy Assessors
- Piloting BEARS implementation in California buildings

The Contractor shall incorporate the developed standards, specifications and additional explanations that describe the processes required to complete an asset rating for an existing nonresidential building in the BEARS Technical Manual. When the CCM has reviewed and approved the draft BEARS Technical Manual, or sooner if the CCM deems it appropriate, the CCM and the Contractor shall agree to a strategy for accepting public comments on the draft BEARS Technical Manual. This may include one or more public workshops as well as public comments received through mail, emails, and phone calls. The Contractor shall work with the CCM to address these public comments in a final version of the BEARS Technical Manual.

**Deliverables:**

- Draft BEARS Technical Manual
- Final BEARS Technical Manual
- Others to be defined as needed through Work Authorizations

**Task 5 - Residential Rating and Disclosure Programs**

The Contractor shall support the Commission in the development of voluntary and mandatory residential rating and disclosure programs. The Contractor shall complete work identified in Task 1 Residential Needs Assessment related to residential rating and disclosure programs. The work in this task is expected to include but not be limited to the following:

- Identifying the issues and leverage opportunities derived from the California Comprehensive Residential Retrofit Programs and utility whole house retrofit programs
- Developing strategies to increase public awareness of home energy performance ratings and disclosures
- Developing training curricula for raters and contractors to implement HERS II programs
- Specifying training and certification requirements for raters and contractors
- Creating a database for home performance rating results

- Researching options for rating disclosures at time of sale that do not adversely impact the real estate transaction schedule
- Developing guidelines for voluntary residential rating and disclosure programs at time of rent or sale
- Piloting voluntary residential rating and disclosure programs
- Developing requirements for mandatory residential rating and disclosure programs such as time of rent or sale rating disclosures, rating disclosures at other appropriate trigger points, or date certain rating disclosures
- Supporting the rulemaking proceedings conducted by the Commission to adopt mandatory residential rating and disclosure regulations

Deliverables:

- To be defined as needed through Work Authorizations

### **Task 6 - Residential Efficiency Improvement Programs**

The Contractor shall support the Commission in the development of voluntary and mandatory residential efficiency improvement programs. The Contractor shall complete work identified in Task 1 Residential Needs Assessment related to residential efficiency improvement programs. The work in this task is expected to include but not be limited to the following:

- Researching options for efficiency improvements at time of sale that do not adversely impact the real estate transaction schedule
- Developing guidelines for voluntary residential efficiency improvement programs at time of sale
- Documenting and publicizing all available and appropriate financing options
- Piloting voluntary residential efficiency improvement programs
- Developing requirements for mandatory residential efficiency improvement programs such as time of sale improvements, improvements at other appropriate trigger points, or date certain improvements
- Supporting the rulemaking proceedings conducted by the Commission to adopt mandatory residential efficiency improvement regulations

Deliverables:

- To be defined as needed through Work Authorizations

### **Task 7 - Affordable Housing**

The Contractor shall support the Commission in reducing the barriers to efficiency financing and tax credits for newly constructed affordable housing. The Contractor shall complete work identified in Task 1 Residential Needs Assessment related to affordable housing. The work in this task is expected to include but not be limited to the following:

- Extending the California Utility Allowance Calculator (CUAC) to be usable for federal and state tax credits for major rehabilitation projects and other financing administered by local housing authorities
- Developing requirements in conjunction with TCAC and other state and local housing agencies for energy efficiency and onsite renewable generation as a condition of subsidization for affordable housing projects

- Developing protocols and procedures for HERS ratings that specifically address the unique characteristics and equipment found in both high-rise and low-rise multi-family buildings that predominate in affordable housing
- Modifying the CUAC for use in retrofitting existing multi-family buildings

Deliverables:

- To be defined as needed through Work Authorizations

### **Task 8 - Nonresidential Rating and Disclosure Programs**

The Contractor shall support the Commission in the development of voluntary and mandatory nonresidential rating and disclosure programs. The Contractor shall complete work identified in Task 2 Nonresidential Needs Assessment related to nonresidential rating and disclosure programs. The work in this task is expected to include but not be limited to the following:

- Identifying the issues and leverage opportunities derived from the implementation of AB 1103 and utility-sponsored operational benchmarking programs
- Developing strategies to increase building industry awareness of nonresidential energy performance ratings and disclosures
- Developing training curricula for Energy Assessors to implement BEARS programs
- Specifying training and certification requirements for Energy Assessors
- Creating a database for building performance rating results
- Developing guidelines for voluntary nonresidential rating and disclosure programs such as time of building space leasing
- Piloting voluntary nonresidential rating and disclosure programs
- Developing requirements for mandatory nonresidential rating and disclosure programs such as at time of building space leasing or building sale, rating disclosures at other appropriate trigger points, and/or date certain rating disclosures
- Supporting the rulemaking proceedings conducted by the Commission to adopt mandatory nonresidential rating and disclosure regulations

Deliverables:

- To be defined as needed through Work Authorizations

### **Task 9 - Nonresidential Efficiency Improvement Programs**

The Contractor shall support the Commission in the development of voluntary and mandatory nonresidential efficiency improvement programs. The Contractor shall complete work identified in Task 2 Nonresidential Needs Assessment related to nonresidential efficiency improvement programs. The work in this task is expected to include but not be limited to the following:

- Developing guidelines for voluntary nonresidential efficiency improvement programs such as time of sale improvements
- Documenting and publicizing all available and appropriate financing options
- Piloting voluntary nonresidential efficiency improvement programs
- Developing requirements for mandatory nonresidential efficiency improvement programs such as time of sale improvements, improvements at other appropriate trigger points, or date certain improvements
- Supporting the rulemaking proceedings conducted by the Commission to adopt mandatory nonresidential efficiency improvement regulations

Deliverables:

- To be defined as needed through Work Authorizations

### **Task 10 - Compliance and Enforcement**

The Contractor shall support the Commission's collaborations with CALBO, CSLB and the investor-owned utilities to develop simplified streamlined, online or fax back building permitting processes for alterations of existing buildings, starting with quality installation of HVAC replacement equipment. The Contractor shall complete work identified in the Task 1 and 2 needs assessments related to energy code compliance and enforcement. The work in this task is expected to include but not be limited to the following:

- Recruiting several local building departments to complete pilot implementation of simplified permitting processes
- Preparing and distributing media and outreach materials to contractors, building departments and consumers
- Monitoring pilots to refine the processes and identify benefits and lessons learned
- Developing actions to encourage the remaining 530 building departments statewide to implement the simplified permitting processes for alterations and apply to other measures beyond HVAC

Deliverables:

- To be defined as needed through Work Authorizations

### **Task 11 - Program Measurement, Verification and Evaluation**

The Contractor shall develop approaches to periodically evaluate and make recommendations to improve the effectiveness of the program. The Contractor shall complete an AB 758 Evaluation Plan that outlines the methods, scope and schedule for the program evaluations. The Contractor shall complete work identified in the Task 1 and 2 needs assessments related to program measurement, verification and evaluation. The work in this task is expected to include but not be limited to the following:

- Establishing baselines of energy use by building type, location and vintage
- Developing and integrating methods to collect necessary data for program evaluation into program delivery processes
- Completing program impact evaluations
- Completing program process evaluations

Deliverables:

- AB 758 Evaluation Plan
- Others to be defined as needed through Work Authorizations

### **Task 12 - Contingencies and Additional Topic Areas**

The Contractor shall assist with work to develop program components beyond what is specifically described in Tasks 1-11. The Contractor shall provide technical expertise to conduct unexpected research and analytic needs to develop program components as they arise throughout the Agreement period.

Deliverables:

- To be defined as needed through Work Authorizations

## **ADMINISTRATIVE TASKS**

### **Task 13 - Contract Management**

#### **Monthly Progress Report**

Deliverables: Monthly Progress Reports

The Contractor shall prepare a monthly progress report that summarizes all activities conducted by the Contractor and its subcontractors. This monthly report shall include a summary of Agreement expenditures to date in addition to the mandatory reporting activities for ARRA SEP programs listed in Exhibit E.2.J (Reporting and Registration Requirements Under Section 1512 of ARRA). Progress reports are due monthly to the CCM within 3 working days of the following month. For example, the February progress report is due by March 3. The Contractor may submit reports one month in arrears. For example, the March 3 progress report may include work performed in January rather than February. The CCM will specify the report format and the number of copies to be submitted. All monthly progress reports will coincide with the invoice period.

Deliverables: Monthly Progress Reports

#### **Invoice**

The Contractor shall prepare a monthly invoice for all allowable Agreement expenses performed for assigned work authorizations. An advance copy of the invoice shall be sent to the CCM to ensure that all records are included and the invoice is for authorized work. The official invoice is to be submitted to the Commission Accounting Office. The CCM will specify the invoice format.

Deliverables: Advance copies of invoices for allowable Agreement expenses

#### **Program Meetings and Briefings**

At the request of the CCM, the Contractor and its subcontractors shall be available for meetings or to provide written and/or verbal program briefings to the Energy Commission's staff or others. Some meetings will be conducted in person, by phone and the internet, as determined by the CCM.

Deliverables: Written briefings as requested

#### **Management of Work Authorizations and Subcontractors**

At the direction of the CCM, the Contractor shall issue Energy Commission prepared work authorizations that define the scope of work, the schedule of deliverables and the project budget to the subcontractors.

On an ongoing basis the Contractor shall perform the following tasks:

- Prepare and issue contract agreements with subcontractors that include all required provisions contained in this Agreement;
- Respond in a timely fashion to information requests or direction from the CCM;
- Coordinate availability of subcontractors to meet needs of the Energy Commission staff;
- Solicit for additional technical expertise upon direction by the CCM;

- Require subcontractors to provide invoices that correctly identify personnel, actual hourly rates and direct expenses charged to each work authorization and provide back-up documentation for expenses; and
- Maintain a current Agreement spreadsheet capable of tracking Contractor and subcontractor work activity, Contractor and subcontractor invoice activity, and the status of work authorizations.
- Inform the CCM in writing of any new proposed subcontractors pursuant to the "Subcontracts" section of Exhibit D.

**Deliverables:**

- Agreements with subcontractors that include all provisions required by this Agreement
- Solicitations for additional technical expertise
- Notices of new proposed subcontractors

**Final Meeting**

A final meeting must be completed during the closeout of this Agreement. The goal of the meeting is to close out this Agreement by discussing findings, conclusions, recommendations, and administrative issues such as final invoicing and release of retention. This meeting will be attended by, at a minimum, the Contractor, the Commission Contracts Officer, and the CCM. The CCM shall send the Contractor final report instructions, an agenda, and a list of expected participants in advance of the meeting.

**Deliverables**

Where a draft of a deliverable is required, the CCM shall provide written comments to the Contractor on the draft within ten (10) working days of receipt. Once agreement has been reached on the draft, the Contractor shall submit the final deliverable to the CCM. The CCM shall provide written approval of the final deliverable within five (5) working days of receipt.

**The Contractor shall:**

- Submit draft and final deliverables to the CCM as required under this Agreement.
- Deliver documents to the CCM in the following formats:
  - Data sets shall be in Microsoft (MS) Access or MS Excel file format.
  - PC-based text documents shall be in MS Word file format.
  - Documents intended for public distribution shall be in PDF file format, with the native file format provided as well.
  - Project management documents shall be in MS Project file format.
- Request exemptions from the electronic file format by submitting a letter requesting exemption at least ninety (90) days before the deliverable is submitted.

Deliverable: Letter requesting exemption from the electronic file format (if applicable)

**EXHIBIT A  
ATTACHMENT 1:  
WORK AUTHORIZATION EXAMPLE**

Portland Energy Conservation, Inc.  
Contract No. 400-10-002

<b>Work Authorization No.:</b> [xxx] <b>Amendment No. (if applicable):</b> [xxx] <b>Agreement Task(s):</b> [xxx] <b>MIS Code:</b> [xxx] <b>Funding Code:</b> [xxx]
--

1. Source of Work Authorization

This Work Authorization (WA) is entered into pursuant to the provisions of Standard Agreement No. 400-10-002, initiated on the [xxx] between the State Energy Resources Conservation and Development Commission (Energy Commission) and Portland Energy Conservation, Inc. This WA is hereby made part of the Standard Agreement.

2. Effective Date

The Effective Date of this WA is the date the Energy Commission's Contract Manager (CCM) signs it. The CCM shall be the last party to sign the WA. No work is authorized, nor shall any work begin, until on or after the Effective Date. The term of this WA is from the Effective Date to [xxx].

3. Purpose

The purpose of this WA is to [xxx].

4. Work Authorization Manager

The Energy Commission WA Manager for this WA is [xxx].

5. Personnel

The following contract personnel will lead the work under this WA:

a. Portland Energy Conservation Incorporated  
[Lead Personnel 1] [DVBE Status]

b. [Subcontractor 1]  
[Lead Personnel 2] [DVBE Status]

6. Task List

Task 1: [name of task]

Task 2: [name of task]

[Add additional tasks as necessary]

See the attached scope of work for a detailed description of the tasks to be performed, deliverables, and due dates. The CCM will schedule and conduct status meetings with the Contractor as determined by the CCM via WebEx to review progress, discuss issues and guide the direction of the Contractor's work.

Acceptance of all deliverables listed in the attached scope of work by the individual identified in this WA as the Commission WA Manager will signify the successful completion of this WA.

7. Budget

The budget for this WA shall not exceed [xxx]. See the attached budget sheet for a detailed budget description for this WA.

- Travel and Per Diem: All travel (in-state and out-of-state) requires the prior written authorization of the CCM. In addition, all travel requires the prior written authorization of the WA Manager or Technical Lead, as indicated in the attached scope of work. Any approved travel shall NOT exceed Commission-approved rates.

**IMPORTANT BUDGET NOTICE**

The actual costs of an approved, completed WA shall not exceed the authorized amount of the WA budget. If, in the performance of the WA, the Contractor or Contract Manager determines that the actual costs might exceed the WA budget amount, the Contractor or Contract Manager shall immediately notify the other. Upon such notification, the Contract Manager may:

1. Amend the WA scope of work to accomplish the work within the budget;
2. Amend the WA to augment the budget;
3. Direct the Contractor to complete the work for the budgeted amount without changing the scope of work; or
4. Terminate the WA.

Any expenses incurred by the Contractor or Subcontractor that have not been duly authorized shall be borne by the Contractor. No amendments to this WA shall be made for work undertaken without the specific approval of the Energy Commission WA Manager and Contract Manager.

**AUTHORIZATIONS**

\_\_\_\_\_  
**[Name of Contractor Representative], [Title]**

Portland Energy Conservation, Inc.

\_\_\_\_\_  
Date

\_\_\_\_\_  
**[Name of Contract Manager], Contract Manager**

California Energy Commission

\_\_\_\_\_  
Date



## Sample Work Authorization Scope of Work

### Task 4 (Hypothetical)

#### WA Task 1: BEARS Field Assessment Protocols

The goal of this task is to develop detailed protocols for field assessment and data collection necessary to generate comparative asset ratings for existing buildings. The individual sub-tasks within this scope of work are described below:

##### *1.1 Review the field assessment protocols established for all relevant performance rating systems, programs, standards and regulations*

The Contractor shall collaborate with and leverage existing information from national performance rating organizations (e.g. COMNET, U.S. EPA, ASHRAE) and performance data disclosure standards organizations (e.g. ASTM). The Contractor shall also review the established field assessment protocols and leverage the experiences of the asset rating standards setting and implementation organizations in Europe, Australia and China.

Deliverable and Due Date: None

##### *1.2 Review other relevant building energy system field data collection protocols*

The Contractor shall review other relevant field data collection protocols, such as completed work where energy simulation models were generated from the data collected from building field surveys (e.g. 2003 CEUS).

Deliverable and Due Date: None

##### *1.3 Determine the appropriate level and amount of field data collection necessary to develop a comparative building energy asset rating*

The Contractor shall identify the commonalities between energy performance assessments, retro-commissioning investigations and energy audit processes. The Contractor shall determine the appropriate amount of physical testing of building energy systems that should be required to rate building energy assets. The Contractor shall specify the field data required to construct building energy asset models. The Contractor shall suggest an oncology that separately identifies energy system features as assets or operational characteristics. The Contractor shall work with the Commission and other stakeholders to establish the field assessment approach necessary for BEARS, considering different approaches for various building types and sizes.

Deliverable and Due Date: None

##### *1.4 Document methods used and results of Task 1 in draft BEARS Field Assessment Protocols Report*

The Contractor will develop a draft task report on the methods used, information relied on and the resulting field assessment protocols. The draft report and all relevant reference material will be available to the Commission to post publicly for stakeholders interested in the development of BEARS.

Deliverable and Due Date: Draft BEARS Field Assessment Protocols Report, April 1, 2011

##### *1.5 Present and communicate with CEC staff and public stakeholders as necessary*

Upon the CCM's review and approval of the draft report, or sooner if appropriate, the CCM and the Contractor shall agree to a date and location for a workshop for public review. The Contractor will

present the draft BEARS Field Assessment Protocols Report at the workshop and respond to issues and questions raised at the workshop, June 1, 2011.

Deliverable and Due Dates: Draft BEARS Field Assessment Protocols Report, April 1, 2011

#### 1.6 *Finalize BEARS Field Assessment Protocols Report*

Following consultation with the CEC and with stakeholders, the Contractor will develop a final report on the methods used, information relied on and the resulting field assessment protocols, and will address CCM and public stakeholder comments in the final report.

Deliverable and Due Date: Final BEARS Field Assessment Protocols Report, July 1, 2011

### **WA Task 2: BEARS Energy System Benchmarks**

The goal of this task is to establish representative energy use benchmarks for all major energy system components in commercial buildings for use in BEARS. Typical benchmarks of energy usage shall be established by building / occupancy type and equipment vintage and shall consider variations due to climatic location and building occupancy, at a minimum. These benchmarks will be used as bases of comparison and the results of these comparisons will be included in the derivation of the asset ratings. The individual sub-tasks within this scope of work are described below:

#### 2.1 *Review and confirm building type categories*

The Commission's PIER program sponsored research by ORNL to develop an operational rating for California commercial buildings. This work resulted in the specification of the following building and occupancy type categories:

<b>Building Type</b>	<b>Occupancy Type</b>
Education	Daycare or Preschool Elementary School Middle / Secondary School Vocational or Trade School
Grocery / Convenience Store	Convenience Store Liquor Store Small General Grocery Specialty / Ethnic / Other Grocery Supermarkets
Health Care	Clinic / Outpatient Care Hospital Medical / Dental Lab Medical / Dental Office Nursing Home
Lab / Technical	Data Processing / Computer Center Lab / R&D Facility Software Development
Lodging	Hotel Motel Resort

<b>Building Type</b>	<b>Occupancy Type</b>
Office / Bank	Insurance / Real Estate Office / Bank
Other	All Other Assembly / Light Manufacturing Police / Fire Stations
Public Assembly	Health / Fitness Center Library / Museum Movie Theaters Other Recreational / Public Assembly Religious Theater / Perf. Arts / Community Ctr.
Restaurant	Bar / Tavern / Nightclub Fast Food or Self Service Specialty / Novelty / Other Restaurant Table Service
Retail	Auto Sales Department / Variety Store Enclosed Mall Other Retail Store Retail Warehouse / Clubs Strip Mall
Service	Gas Station / Auto Repair Gas Station with Convenience Store Other Services or Repair Shop
Warehouse	Conditioned Warehouse Refrigerated Warehouse Unconditioned Warehouse

The Contractor shall review these building and occupancy type categories along with all other relevant building energy use data sources (e.g. CEUS, CBECS) to determine if energy system component benchmarks should be established for each of these building categories. The Contractor shall recommend the appropriate building and occupancy type categories for which energy system component benchmarks will be established.

Deliverable and Due Date: List of Distinct Building/Occupancy Types, January 1, 2011

## *2.2 Identify major energy system components for each building /occupancy type category*

Extending the work begun in 2.1 and incorporating the work completed in Task 1, the Contractor shall identify the major energy system components that should be benchmarked for each building/occupancy type.

Deliverable and Due Date: List of Major Energy System Components for each Building/Occupancy Type, April 1, 2011

### *2.3 Establish energy use benchmarks for each major energy system component*

The Contractor shall develop annual energy use benchmarks for each energy system component identified above, with consideration of California climate and equipment vintage variations as appropriate. The Contractor shall also establish standard deviations or other measures of expected variance for each energy use benchmark.

Deliverable and Due Date: None

### *2.4 Document methods used and results of Task 2 in draft BEARS Energy System Benchmarks Report*

The Contractor will develop a draft task report on the methods used, data relied on and the resulting energy system benchmarks. The draft report and all relevant reference materials will be available to the Commission to post publicly for stakeholders interested in the development of BEARS.

Deliverable and Due Date: Draft BEARS Energy System Benchmarks Report, May 1, 2011

### *2.5 Present and communicate with CEC staff and public stakeholders as necessary*

Upon the CCM's review and approval of the draft report, or sooner if appropriate, the CCM and the Contractor shall agree to a date and location for a workshop for public review. The Contractor will present the draft BEARS Field Assessment Protocols Report at the workshop and respond to issues and questions raised at the workshop, July 1, 2011.

Deliverable and Due Date: Draft BEARS Energy System Benchmarks Report, May 1, 2011

### *2.6 Finalize BEARS Energy System Benchmarks Report*

Following consultation with the CEC and with stakeholders, the Contractor will develop a final report on the methods used, data relied on and the resulting energy system benchmarks, and will address CCM and public stakeholder comments in the final report.

Deliverable and Due Date: Final BEARS Energy System Benchmarks Report, August 1, 2011

## **WA Task 3: BEARS Software Modeling Specifications**

The Contractor shall develop detailed requirements for software programs used to generate building energy asset ratings. The Commission anticipates that it will use the BEARS modeling specifications within a process to certify third-party software for use in future BEARS voluntary and mandatory programs. The individual sub-tasks within this scope of work are described below:

### *3.1 Review and incorporate COMNET Standards*

The Contractor shall review the COMNET Manual: Energy Modeling Rules and Procedures for applicability in the development of BEARS software modeling specifications. If appropriate, specific COMNET rules and procedures should be incorporated by reference.

Deliverable and Due Date: None

### *3.2 Develop additional specifications as needed*

The Contractor shall develop additional software specifications to incorporate all BEARS rating components, as developed within Task 4 of the RFP Scope of Work. These BEARS rating components include but are not limited to:

- Modeling rules required to estimate the energy use of existing buildings
- Computation of the rating metric for the modeled building

- Generation of the BEARS rating scale with proper indication of where the rated building is on the scale
- Production of other rating details within a printed report that can be used for disclosure purposes

Deliverable and Due Date: None

*3.2 Document methods used and results of Task 3 in draft BEARS Software Modeling Specifications Report*

The Contractor will develop a draft task report on the methods used, information relied on and the resulting software modeling specifications. The draft report will be available to the Commission to post publicly for stakeholders interested in the development of BEARS.

Deliverable and Due Date: Draft BEARS Software Modeling Specifications Report, September 1, 2011

*3.3 Present and communicate with CEC staff and public stakeholders as necessary*

Upon the CCM's review and approval of the draft specifications, or sooner if appropriate, the CCM and the Contractor shall agree to a date and location for a workshop for public review. The Contractor will present the draft BEARS Software Modeling Specifications at the workshop and respond to issues and questions raised at the workshop, November 1, 2011.

Deliverable and Due Date: Draft BEARS Software Modeling Specifications Report, September 1, 2011

*3.4 Finalize BEARS Software Modeling Specifications Report*

Following consultation with the CEC and with stakeholders, the Contractor will develop a final report on the methods used, data relied on and the resulting software modeling specifications, and will address CCM and public stakeholder comments in the final report.

Deliverable and Due Date: Final BEARS Energy Software Modeling Specifications Report, February 1, 2012

**Schedule of Deliverables:**

<b>Task #</b>	<b>DELIVERABLES</b>	<b>DUE DATES</b>
<b>1</b>	<ul style="list-style-type: none"><li>• Draft BEARS Field Assessment Protocols Report</li><li>• Final BEARS Field Assessment Protocols Report</li></ul>	<b>April 1, 2011</b> <b>July 1, 2011</b>
<b>2</b>	<ul style="list-style-type: none"><li>• List of Distinct Building/Occupancy Types</li><li>• List of Major Energy System Components for each Building/Occupancy Type</li><li>• Draft BEARS Energy System Benchmarks Report</li><li>• Final BEARS Energy System Benchmarks Report</li></ul>	<b>January 1, 2011</b> <b>April 1, 2011</b> <b>May 1, 2011</b> <b>August 1, 2011</b>
<b>3</b>	<ul style="list-style-type: none"><li>• Draft BEARS Software Modeling Specifications Report</li><li>• Final BEARS Energy Software Modeling Specifications Report</li></ul>	<b>September 1, 2011</b> <b>February 1, 2012</b>

## Sample Work Authorization Budget

### 1. Budget Summary:

Portland Energy Conservation, Inc. (Prime)	
Category	Amount
Personnel (Unloaded Rates)	\$ 64,172.57
Fringe Benefits	\$ 20,868.40
Indirect Overhead	\$ 7,741.95
General & Administrative	\$ 50,614.22
Profit	\$ 8,737.36
Other Direct Costs	\$ 2,500.00
Subcontractors	\$ 3,000.00
<b>TOTAL CONTRACT AMOUNT</b>	<b>\$ 157,634.50</b>

## 2. Personnel Hours:

Architectural Energy Corporation (AEC)					
Name	Job Classification/Title	Task 1 Hours	Task 2 Hours	Task 3 Hours	Total Hours
Charles Eley	Senior Vice President	8	10	40	58
Dan Suyeyasu	Director of Energy Programs	n/a	20	70	90
Mike Johnston	Staff Engineer II	15	n/a	0	15
John Arent	Staff Engineer I	50	0	250	300
Eric Shadd	Staff Engineer I	n/a	80	0	80
Kim Goodrich	Coordinator	0	n/a	40	40
<b>Totals</b>		<b>73</b>	<b>110</b>	<b>400</b>	<b>583</b>

Portland Energy Conservation, Inc. (PECI)					
Name	Job Classification/Title	Task 1 Hours	Task 2 Hours	Task 3 Hours	Total Hours
Eliot Crowe	Senior Program Manager	30	5	10	45
Glenn Hansen	Senior Engineer	95	10	10	115
Tudi Haasl	Senior Technical Advisor	10	0	0	10
Michelle Lichtenfels	Program Manager	n/a	10	20	30
<b>Totals</b>		<b>135</b>	<b>25</b>	<b>40</b>	<b>200</b>

New Buildings Institute (NBI)					
Name	Job Classification/Title	Task 1 Hours	Task 2 Hours	Task 3 Hours	Total Hours
Cathy Turner	Senior Analyst	10	n/a	25	35
M Cherniack	Senior Project Manager	10	45	105	160
<b>Totals</b>		<b>20</b>	<b>45</b>	<b>130</b>	<b>195</b>

Institute for Market Transformation (IMT)					
Name	Job Classification/Title	Task 1 Hours	Task 2 Hours	Task 3 Hours	Total Hours
Ron Nelson	Consultant to IMT	20	40	120	180
Ridhima Nayyar	COMNET Intern	n/a	10	60	70
<b>Totals</b>		<b>20</b>	<b>50</b>	<b>180</b>	<b>250</b>

Combined Totals for the Task Team					
		Task 1 Hours	Task 2 Hours	Task 3 Hours	Total Hours
<b>Totals</b>		<b>248</b>	<b>230</b>	<b>750</b>	<b>1228</b>



### 3. Fee Calculation - AEC:

#### Architectural Energy Corporation (AEC)

				Percentage Rate			
Time intervals from the start of the project through the Contract Term End Date. (Use your organization's Fiscal Year start / end dates.)				Fringe Benefits (FB)	Indirect Overhead (OH)	General & Administrative (GA)	Profit (P) (10% Max)
From:	7/1/10	To:	12/31/10	59%	0%	119%	10%
From:	1/1/11	To:	12/31/11	59%	0%	119%	10%
From:	1/1/12	To:	12/31/12	59%	0%	119%	10%
From:	1/1/13	To:	12/31/13	59%	0%	119%	10%
From:		To:		%	%	%	0%

Note: Use the categories that you typically use in your standard business practice.

Expense Items in the Budget Spreadsheets	List the budget expense items to which the indirect costs or fees are applied. Use the following abbreviations: DL = Direct Labor, FB = Fringe Benefits, M = Materials/Misc., EQ = Equipment, T = Travel, S = Subcontracts, OH = Indirect Overhead, G&A = Ge
Fringe Benefits	DL
Indirect Overhead	
General & Administrative	DL
Profit*	FB, G&A

List items you include in each category (e.g., vacation, retirement plan, telephone, secretarial, rent/lease, insurance, etc.). If vacation, holidays, or sick leave are included, do not double count in your hourly rate calculations.		
Fringe Benefits	Indirect Overhead	General & Administrative
Payroll Taxes		Indirect Labor-Employees
PTO Expense		Workers Comp Insurance
Vacation Expense		Recruiting
Holiday Pay		Cafeteria & Pension Plan Administration
Profit Sharing		Travel
Health Insurance		Training, Seminars & Education
		Rent
		Professional Registration & Dues
		Repairs & Maintenance
		Utilities
		Communication Expenses
		Equipment
		Computer
		Payroll Processing Fees
		Postage & Delivery
		Taxes & Licenses
		Insurance-Professional Liability
		Bank fees
		Temporary Administrative Labor
		Automobile Expense
		Relocation

#### 4. Fee Calculation – PECE:

##### Portland Energy Conservation, Inc. (PECE)

				Percentage Rate			
Time intervals from the start of the project through the Contract Term End Date. (Use your organization's Fiscal Year start / end dates.)				Fringe Benefits (FB)	Indirect Overhead (OH)	General & Administrative (GA)	Profit (P) (10% Max)
From:	11/1/10	To:	12/31/10	21%	160%	0%	10%
From:	1/1/11	To:	12/31/11	21%	160%	0%	10%
From:	1/1/12	To:	12/31/12	21%	160%	0%	10%
From:	1/1/13	To:	12/31/13	21%	160%	0%	10%
From:		To:		%	%	%	0%

Note: Use the categories that you typically use in your standard business practice.

PECE uses a simplified allocation method to pool and allocate its indirect costs as described in OMB (Office of Management & Budget) circular A-122

Expense Items in the Budget Spreadsheets	List the budget expense items to which the indirect costs or fees are applied. Use the following abbreviations: DL = Direct Labor, FB = Fringe Benefits, M = Materials, EQ = Equipment, T = Travel, MS = Miscellaneous, S = Subcontracts, OH = Indirect Overhead, G&A = General & Administrative (For example, if the Fringe Benefits percentage is applied to Direct Labor expense, you would list DL in the Fringe Benefits line.)
Fringe Benefits	DL
Indirect Overhead	D/L
General & Administrative	N/A
Profit*	DL, FB, OH

List items you include in each category (e.g., vacation, retirement plan, telephone, secretarial, rent/lease, insurance, etc.). If vacation, holidays, or sick leave are included, do not double count in your hourly rate calculations.

Fringe Benefits	Indirect Overhead	General & Administrative
Payroll Tax	Admin Salaries	
Employee Benefits	Fringe on Admin Salaries	
Employee Retirement	Consultant fees	
	Marketing	
	Supplies	
	Postage	
	Printing	
	Telephone	
	Computer service	
	Equipment rent & maintenance	
	Travel	
	Conferences	
	Dues and publications	
	Rent	
	Insurance	
	Depreciation	
	Legal and accounting	
	Recruitment	
	Temporary clerical	
	Training	
	Other (Moving expenses, miscellaneous expenses, office plant maintenance, document disposal, finance/service fees)	

## 5. Fee Calculation – NBI:

### New Buildings Institute (NBI)

Time intervals from the start of the project through the Contract Term End Date. (Use your organization's Fiscal Year start / end dates.)				Percentage Rate			
				Fringe Benefits (FB)	Indirect Overhead (OH)	General & Administrative (GA)	Profit (P) (10% Max)
From:	2010	To:	2011	31%	32%	25%	10%
From:	2011	To:	2012	33%	32%	27%	10%
From:	2012	To:	2013	35%	32%	29%	10%
From:		To:		%	%	%	0%
From:		To:		%	%	%	0%

Note: Use the categories that you typically use in your standard business practice.

Expense Items in the Budget Spreadsheets	List the budget expense items to which the indirect costs or fees are applied. Use the following abbreviations: DL = Direct Labor, FB = Fringe Benefits, M = Materials/Misc., EQ = Equipment, T = Travel, S = Subcontracts, OH = Indirect Overhead, G&A = Ge
Fringe Benefits	DL
Indirect Overhead	DL+FB
General & Administrative	DL+FB
Profit*	DL+FB

List items you include in each category (e.g., vacation, retirement plan, telephone, secretarial, rent/lease, insurance, etc.). If vacation, holidays, or sick leave are included, do not double count in your hourly rate calculations.

Fringe Benefits	Indirect Overhead	General & Administrative
employee benefits	nonbillable labor	occupancy
	vacation	dues/memberships
	holiday	postage
	sick leave	office supplies
		travel/meeting costs
		IT costs

\*Subcontractor profit is not allowed on Sub-subcontractor invoices.

## 6. Fee Calculation – IMT:

### Institute for Market Transformation (IMT)

Time intervals from the start of the project through the Contract Term End Date. (Use your organization's Fiscal Year start / end dates.)				Percentage Rate			
				Fringe Benefits (FB)	Indirect Overhead (OH)	General & Administrative (GA)	Profit (P) (10% Max)
From:	1/1/10	To:	12/31/10	0%	20%	0%	0%
From:	1/1/11	To:	12/31/11	0%	20%	0%	0%
From:	1/1/12	To:	12/31/12	0%	20%	0%	0%
From:	1/1/13	To:	12/31/13	0%	20%	0%	0%

Note: Use the categories that you typically use in your standard business practice.

Expense Items in the Budget Spreadsheets	List the budget expense items to which the indirect costs or fees are applied. Use the following abbreviations: DL = Direct Labor, FB = Fringe Benefits, M = Materials/Misc., EQ = Equipment, T = Travel, S = Subcontracts, OH = Indirect Overhead, G&A = Ge
Fringe Benefits	
Indirect Overhead	DL,M,EQ,T,MS,S
General & Administrative	
Profit*	

List items you include in each category (e.g., vacation, retirement plan, telephone, secretarial, rent/lease, insurance, etc.). If vacation, holidays, or sick leave are included, do not double count in your hourly rate calculations.

Fringe Benefits	Indirect Overhead	General & Administrative
Payroll Taxes	Indirect Labor-Employees	
PTO Expense	Workers Comp Insurance	
Vacation Expense	Recruiting	
Holiday Pay	Cafeteria & Pension Plan	
Health Insurance	Travel	
	Training, Seminars & Education	
	Business Development	
	Rent	
	Professional Registration & Dues	
	Repairs & Maintenance	
	Utilities	
	Communication Expenses	
	Equipment	
	Computer	
	Accounting/Audit/Tax	
	Materials & Operating Supplies	
	Payroll Processing Fees	
	Postage & Delivery	
	Licenses	

**7. Other Indirect Costs:**

Portland Energy Conservation, Inc. (PECI)

Pre-approved Travel List				
Task #	Trip Purpose	Destination	Who	Amount
1	Field Assessment Protocol - Pilot site visits	Various*	AEC	\$ 1,500.00
1-3	Client meetings (eg. Specification review, deliverable review, etc.)	Sacramento	AEC	\$ 500.00
Total:				\$ 2,000.00

\* Anticipating travel to locations in or near San Francisco

Equipment				
Task #	Name of Equip.	Description	Purpose	Amount
Total:				0

Material(s)		
Task #	Description of Material(s)	Amount
Total:		0

Miscellaneous Expenditures		
Task #	Descriptions of Expenditures	Amount
1-3	Project-specific direct costs (eg. Telephone, conference calls, postage, printing, etc.)	\$ 500.00
1	Fees for participation in Field Assessment protocol pilots - Energy Assessors (minor subcontractors)	\$ 3,000.00
Total:		\$ 3,500.00

The Contractor and all Subcontractors must provide details of "Travel," "Equipment," "Materials," and "Miscellaneous," listed in Attachment A-6. Task numbers must be entered for all items on each table. Include any meetings, and the final meeting. Also include any other trips that you can identify. Any trips not identified here will need prior written approval by the Commission Contract Manager. Along with the purpose, include the destination, person or people taking the trip, and the amount for each trip.